

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 100)

FOIL the expressions shown below:

1. $(3x - 4)(-3x + 9)$

$$\begin{aligned} & (3)(-3)x^2 + (3)(9)x + (-4)(-3)x + (-4)(9) \\ & (-9)x^2 + (27)x + (12)x + (-36) \\ & -9x^2 + 39x - 36 \end{aligned}$$

2. $(-3x + 5)(9x - 4)$

$$\begin{aligned} & (-3)(9)x^2 + (-3)(-4)x + (5)(9)x + (5)(-4) \\ & (-27)x^2 + (12)x + (45)x + (-20) \\ & -27x^2 + 57x - 20 \end{aligned}$$

3. $(4x - 3)(-3x - 3)$

$$\begin{aligned} & (4)(-3)x^2 + (4)(-3)x + (-3)(-3)x + (-3)(-3) \\ & (-12)x^2 + (-12)x + (9)x + (9) \\ & -12x^2 - 3x + 9 \end{aligned}$$

4. $(-8x - 7)(-2x - 7)$

$$\begin{aligned} & (-8)(-2)x^2 + (-8)(-7)x + (-7)(-2)x + (-7)(-7) \\ & (16)x^2 + (56)x + (14)x + (49) \\ & 16x^2 + 70x + 49 \end{aligned}$$

5. $(9x - 6)(7x - 6)$

$$\begin{aligned} & (9)(7)x^2 + (9)(-6)x + (-6)(7)x + (-6)(-6) \\ & (63)x^2 + (-54)x + (-42)x + (36) \\ & 63x^2 - 96x + 36 \end{aligned}$$

FOIL the expressions shown below:

6. $(2x + 9)(-6x + 4)$

$$\begin{aligned} & (2)(-6)x^2 + (2)(4)x + (9)(-6)x + (9)(4) \\ & (-12)x^2 + (8)x + (-54)x + (36) \\ & -12x^2 - 46x + 36 \end{aligned}$$

7. $(7x - 3)(7x + 6)$

$$\begin{aligned} & (7)(7)x^2 + (7)(6)x + (-3)(7)x + (-3)(6) \\ & (49)x^2 + (42)x + (-21)x + (-18) \\ & 49x^2 + 21x - 18 \end{aligned}$$

8. $(-4x + 8)(5x + 4)$

$$\begin{aligned} & (-4)(5)x^2 + (-4)(4)x + (8)(5)x + (8)(4) \\ & (-20)x^2 + (-16)x + (40)x + (32) \\ & -20x^2 + 24x + 32 \end{aligned}$$

9. $(-3x + 8)(-2x + 4)$

$$\begin{aligned} & (-3)(-2)x^2 + (-3)(4)x + (8)(-2)x + (8)(4) \\ & (6)x^2 + (-12)x + (-16)x + (32) \\ & 6x^2 - 28x + 32 \end{aligned}$$

10. $(7x + 7)(6x + 4)$

$$\begin{aligned} & (7)(6)x^2 + (7)(4)x + (7)(6)x + (7)(4) \\ & (42)x^2 + (28)x + (42)x + (28) \\ & 42x^2 + 70x + 28 \end{aligned}$$